

What is claimed is:

- 1 1. A method comprising:
2 positioning a semiconductor test wafer on a rotatable
3 head;
4 applying the semiconductor test wafer to a rotatable
5 polishing pad; and
6 polishing the surface of the semiconductor test wafer
7 to remove less than about 500 Angstroms therefrom.

- 1 2. The method of claim 1 further comprising applying
2 an abrasive slurry to the rotatable polishing pad.

- 1 3. The method of claim 1 further comprising applying
2 a pressure to the semiconductor test wafer against the
3 polishing pad of less than about 1.0 pound per square inch.

- 1 4. The method of claim 1 further comprising removing
2 less than about 200 Angstroms from the semiconductor test
3 wafer.

- 1 5. The method of claim 1 further comprising
2 conditioning the rotatable polishing pad with a bristled
3 brush after polishing the semiconductor test wafer.

1 6. A method comprising:
2 detecting particle defects added to the surface of a
3 virgin test wafer by a semiconductor manufacturing tool;
4 polishing the virgin test wafer with a polishing pad
5 to remove less than about 500 Angstroms from the surface
6 thereof; and
7 re-using the virgin test wafer to detect particle
8 defects in a semiconductor manufacturing tool.

1 7. The method of claim 6 further comprising
2 conditioning the polishing pad with a plastic bristled
3 brush after polishing the virgin test wafer.

1 8. The method of claim 6 further comprising rotating
2 the polishing pad at a speed between about 10 revolutions
3 per minute and about 100 revolutions per minute.

1 9. The method of claim 6 further comprising applying
2 a down force pressure to the virgin test wafer of between
3 about 0.05 pounds per square inch and about 4.5 pounds per
4 square inch.

1 10. The method of claim 6 further comprising applying
2 an abrasive slurry to the polishing pad, the abrasive
3 slurry having an average particle size between about 25
4 nanometers and about 50 nanometers.

1 11. A system comprising:
2 a polishing platen having a polishing pad mounted
3 thereon, the polishing platen rotatable at between about 10
4 revolutions per minute and about 100 revolutions per
5 minute; and
6 a polishing head to hold a semiconductor wafer and
7 urge the wafer against the polishing pad at a down force
8 pressure of between about 0.05 pounds per square inch and
9 about 4.5 pounds per square inch.

1 12. The system of claim 11 further comprising a
2 dispenser to hold an abrasive slurry and dispense the
3 slurry onto the polishing pad.

1 13. The system of claim 11 further comprising a
2 rotatable pad conditioner having a plurality of soft
3 bristles mounted on pellets.

1 14. The system of claim 11 wherein the polishing head
2 is rotatable.

1 15. The system of claim 11 wherein the total material
2 removed is less than about 500 Angstroms.